

REMARKS

This is a full and timely response to the outstanding Office Action mailed July 23, 2008. Upon entry of the amendments in this response, claims 1, 3 – 9, 11 – 15, and 22 – 30 remain pending. In particular, Applicants add claim 30 and amend claims 1, 13, and 22. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

I. Rejections under 35 U.S.C. §103(a)

A. Claim 1 is Allowable Over *Oulu* in view of *Boykin* further in view of *Johnson*

The Office Action indicates that claim 1 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent Number 6,792,460 ("*Oulu*") in view of U.S. Patent Publication Number 2004/0153996 ("*Boykin*") further in view of Mark Johnson, "The Application Response Measurement (ARM) API, Version 2", 1997 ("*Johnson*"). Applicants respectfully traverse this rejection for at least the reason that *Oulu* in view of *Boykin* further in view of *Johnson* fails to disclose, teach, or suggest all of the elements of claim 1. More specifically, claim 1 recites:

A method of monitoring response time of function associated with a software component, comprising:

operating on a bytecode representation of a function to be instrumented by inserting an instrumentation code in the bytecode representation of the function without modifying respective source code of the function and while classes of the function are being loaded for execution and incorporating instrumentation hooks into the bytecode representation prior to loading and initialization of a class containing the function by a virtual machine;

generating a call to an Application Response Measurement (ARM) agent to cause the ARM agent to effect generation of a start time marker upon start of execution of the function and a stop time marker upon completion of execution of the function, wherein the ARM agent is one of a plurality of agents of an ARM protocol;

generating a correlator, the correlator configured to identify a relationship of the function with at least one other function, the correlator being removed in response to completion of the function and the at least one other function;
and

utilizing the start and stop time markers to determine a response time of the function.

(Emphasis added).

Applicants respectfully submit that claim 1, as amended, is allowable over the cited art for at least the reason that *Oulu*, *Boykin*, and *Johnson*, taken alone or in combination, fail to disclose, teach, or suggest a “method of monitoring response time of function associated with a software component, comprising... ***generating a correlator, the correlator configured to identify a relationship of the function with at least one other function, the correlator being removed in response to completion of the function and the at least one other function***” as recited in claim 1, as amended. More specifically, *Oulu* discloses a “probe that runs on an application server [that] initially instruments these application components (preferably at component load time) to add code for tracking execution start and stop times” (column 1, line 41). However, *Oulu* fails to even suggest “***generating a correlator, the correlator configured to identify a relationship of the function with at least one other function, the correlator being removed in response to completion of the function and the at least one other function***” as recited in claim 1, as amended.

Additionally, *Boykin* and *Johnson* fail to overcome the deficiencies of *Oulu*. For at least these reasons, claim 1, as amended, is allowable.

B. Claim 13 is Allowable Over *Oulu* in view of *Boykin* further in view of *Johnson*

The Office Action indicates that claim 13 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent Number 6,792,460 ("*Oulu*") in view of U.S. Patent Publication Number 2004/0153996 ("*Boykin*") further in view of Mark Johnson, "The Application Response Measurement (ARM) API, Version 2", 1997 ("*Johnson*"). Applicants respectfully traverse this rejection for at least the reason that *Oulu* in view of *Boykin* further in view of *Johnson* fails to disclose, teach, or suggest all of the elements of claim 13. More specifically, claim 13 recites:

A system comprising:
a memory component; and
a processor configured to monitor a response time of a function associated with a software component, the processor configured to implement:

an instrumentation engine for operating on a bytecode representation of a function to be instrumented by inserting instrumentation code in the bytecode representation of the function without modifying respective source code of the function and while classes of the function are being loaded for execution, the instrumentation code effecting generation of a start time marker and a stop time marker upon resumption and completion, respectively, of the function, the instrumentation code further configured to incorporate instrumentation hooks into the bytecode representation prior to loading and initialization of a class containing the function by a virtual machine;

an interface module being invoked by the instrumentation code upon start and completion of the function;

an application response measurement (ARM) agent in communication with the interface module;

a correlator configured to identify a relationship of the function with at least one other function, the correlator being removed in response to completion of the function and the at least one other function;

wherein the interface module, upon invocation by the instrumentation code, calls the ARM agent to cause generation of the start and stop time markers by the ARM agent, and wherein the ARM agent is one of a plurality of agents of an ARM protocol; and

an analysis and presentation module in communication with the ARM agent for presenting the response time to a user and/or storing the response time in a database.

(Emphasis added).

Applicants respectfully submit that claim 13, as amended, is allowable over the cited art for at least the reason that *Oulu, Boykin, and Johnson*, taken alone or in combination, fail to disclose, teach, or suggest a “system comprising: a processor configured to monitor a response time of a function associated with a software component, the processor configured to implement... ***a correlator configured to identify a relationship of the function with at least one other function, the correlator being removed in response to completion of the function and the at least one other function***” as recited in claim 13, as amended. More specifically, *Oulu* discloses a “probe that runs on an application server [that] initially instruments these application components (preferably at component load time) to add code for tracking execution start and stop times” (column

1, line 41). However, *Oulu* fails to even suggest “a ***correlator configured to identify a relationship of the function with at least one other function, the correlator being removed in response to completion of the function and the at least one other function***” as recited in claim 13, as amended.

Additionally, *Boykin* and *Johnson* fail to overcome the deficiencies of *Oulu*. For at least these reasons, claim 13, as amended, is allowable.

C. Claim 22 is Allowable Over *Oulu* in view of *Boykin* further in view of *Johnson*

The Office Action indicates that claim 22 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent Number 6,792,460 (“*Oulu*”) in view of U.S. Patent Publication Number 2004/0153996 (“*Boykin*”) further in view of Mark Johnson, “The Application Response Measurement (ARM) API, Version 2”, 1997 (“*Johnson*”). Applicants respectfully traverse this rejection for at least the reason that *Oulu* in view of *Boykin* further in view of *Johnson* fails to disclose, teach, or suggest all of the elements of claim 22. More specifically, claim 22 recites:

A system of monitoring response time of a function associated with a software component, comprising:

means for operating on a bytecode representation of a function to be instrumented by inserting an instrumentation code in the bytecode representation of the function without modifying respective source code of the function and while classes of the function are being loaded for execution and incorporating instrumentation hooks into the bytecode representation prior to loading and initialization of a class containing the function by a virtual machine;

means for generating a call to an Application Response Measurement (ARM) agent to cause the ARM agent to effect generation of a start time marker upon start of execution of the function and a stop time marker upon completion of execution of the function, wherein the ARM agent is one of a plurality of agents of an ARM protocol;

means for generating a correlator, the correlator configured to identify a relationship of the function with at least one other function, the correlator being removed in response to completion of the function and the at least one other function;
and

means for utilizing the start and stop time markers to determine a response time of the function.

(Emphasis added).

Applicants respectfully submit that claim 22, as amended, is allowable over the cited art for at least the reason that *Oulu, Boykin, and Johnson*, taken alone or in combination, fail to disclose, teach, or suggest a “system of monitoring response time of a function associated with a software component, comprising... ***means for generating a correlator, the correlator configured to identify a relationship of the function with at least one other function, the correlator being removed in response to completion of the function and the at least one other function***” as recited in claim 22, as amended. More specifically, *Oulu* discloses a “probe that runs on an application server [that] initially instruments these application components (preferably at component load time) to add code for tracking execution start and stop times” (column 1, line 41). However, *Oulu* fails to even suggest “***means for generating a correlator, the correlator configured to identify a relationship of the function with at least one other function, the correlator being removed in response to completion of the function and the at least one other function***” as recited in claim 22, as amended.

Additionally, *Boykin* and *Johnson* fail to overcome the deficiencies of *Oulu*. For at least these reasons, claim 22, as amended, is allowable.

D. Claims 3 – 9, 11 – 12, 14 – 15, and 23 – 29 are Allowable Over *Oulu* in view of *Boykin* further in view of *Johnson*

The Office Action indicates that claims 3 – 9, 11 – 12, 14 – 15, and 23 – 29 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent Number 6,792,460 ("*Oulu*") in view of U.S. Patent Publication Number 2004/0153996 ("*Boykin*") further in view of Mark Johnson, "The Application Response Measurement (ARM) API, Version 2", 1997 ("*Johnson*"). Applicants respectfully traverse this rejection for at least the reason that *Oulu* in view of *Boykin* further in view of *Johnson* fails to disclose, teach, or suggest all of the elements of claims 3 – 9, 11 – 12, 14 – 15, and 23 – 29. More specifically, dependent claims 3 – 9 and 11 – 12 are believed to be allowable for at least the reason that these claims depend from and include the elements of allowable independent claim 1. Dependent claims 14 – 15 are believed to be allowable for at least the reason that they depend from and include the elements of allowable independent claim 13. Further, dependent claims 23 – 29 are believed to be allowable for at least the reason that they depend from and include the elements of allowable independent claim 22. *In re Fine, Minnesota Mining and Mfg.Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002).

II. New Claim 30 is Allowable

In addition, Applicants add new claim 30. New claim 30 is allowable over the cited art for at least the reason that this claim depends from allowable independent claim 1. *In re Fine, Minnesota Mining and Mfg.Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002).

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested.

Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and Official Notice, or statements interpreted similarly, should not be considered well-known for the particular and specific reasons that the claimed combinations are too complex to support such conclusions and because the Office Action does not include specific findings predicated on sound technical and scientific reasoning to support such conclusions.

If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

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